PHOTON TYPE 560

PHOTO UNIT AND CONTROL CIRCUIT FOR COMPUTER-GENERATED TAPE

Purpose

The Type 560 Photon is an inexpensive version of the standard Photon. It can process 8-level tape as generated by computer or peripheral equipment to produce excellent typography on photographic film or paper. All the versatility of the Standard Photon are included in type 560 which can mix any of 16 type faces in any point sizes from 4 to 72 with leading variations as minute as one tenth of a point.

General Description

The Photon 560 includes:

-A standard Photographic Unit with 12 lenses and a removable inverting prism for the selection of right or wrong reading composition.

-A Transcription Rack comprising a tape reader and its controls and modified 540 transcription circuits.

-A Control Panel attached to the transcription rack. The manual controls and warning lights are as follows:

ON-OFF Switch
LEADING SELECTION switches
RESET switch
STOP (at end of line) switch
CONTINUOUS LEADING button
FORWARD-REVERSE leading switch
Resettable LEADING COUNTER
Resettable LINE COUNTER
Fuse lights
Trouble shooting lights
W. J. light
No film light
Tape trouble light
Disc level indicating lights
Half turn indicating light
Lens Turret position lights

Paper Tape Format

All the available codes are listed in attached sheets. The eighth-level code "Z" will appear with any two-frame group defining a character, a space or a function. This perforation is utilized to synchronize the tape reader.

The 560 machine performs no justification calculations. These must be carried out by the computer or data processor. Justification is obtained by the proper selection of spacing codes between words (normal justification) or between letters (letter specing) or at the beginning of a line (flush right) or at the beginning and end of a line (center) by the computer independently of Photon 560 equipment.

Specifications

Quality of product and performance are the same as in the 200 or 540 Photon.

Characters are projected at the rate of 10 per second up to and including 18 point type.

Maximum length of line: 9" for wrong reading material, and 7" for right reading material (or vice versa on special request).

To obtain large sizes (above 28 set) use the double set code. All the following characters should have a width code equal to one half of their actual width.

PHOTON TYPE 560

FIXED SPACES

1	KU	128
1/2	KU	64
1/4	KU	32
1/8	KU	16
1/16	KU	8
1/32	KU	4
1/64	KU	2

ZERO SET CHARACTER

Identity Code Only

NON PHOTO CHARACTER

Width Code Only

END OF LINE

Normal	SAC
MJ	SABC
ZL	SAF

LEADING

Normal

1 Pt.	SA2
2 Pt.	SA4
4 Pt.	SA8
8 Pt.	SA16
16 Pt.	SA32
32 Pt.	SA64

Additional

1 Pt.	SADE
2 Pt.	SADF
4 Pt.	SADEF
8 Pt.	SAD

DISC LEVEL

1	SCFG
2	SCEG
3	SCG
4	SCEF
5	SCF
6	SCE
7	SC
8	SCEFG
9	SCDFG
10	SCDEG
11	SCDG
12	SCDEF
13	SCDF
14	SCDE
15	SCD
16	SCDEFG

DOUBLE SET / SINGLE SET

DOUBLE SET	SEF
SINGLE SET	SE

LENS SHIFT

Location 1	SBE
2	SBF
3	SBEF
4	SBG
5	SBEG
6	SBDE
7	SBDF
8	SBDEF
9	SBDEG
10	SBC+any EFG
11	SBCD+any EF
12	SBCDG+ any EF

W. J. CHECK

S Alone
Plus Complement to
510 Except 2

PI-MAT

Position 1	SAG
2	SABG
3	SACG
4	SABCG
5	SADG
6	SABDG
7	SACDG
8	SABCDG

STOP CODE

SA

HALF-TURN SHIFT

Operate - Disc level code
+ or -"D"
Release - Disc level

CANCELLATION

All Codes Punched

PHOTON TYPE 560

		PLUS A			PLUS A
S	W. J. CHECK	STOP CODE	SBDG		PI-MAT 6
SB			SBEF	LENS T.3	
SC	ROW 7	END OF LINE	SBEG	LENS T.5	
SD		PUNCH	SBFG		
SE	SINGLE SET (200 SERIES		SCDF	ROW 13	
SF		ZERO LEADING	SCDG	ROW 11	PI-MAT 7
SG		PI-MAT 1	SDEG		8 PT. AD. LEAD
SBC	LENS T.10	MULT-JUST	SCEF	ROW 4	
SCD	ROW 15		SCEG	ROW 2	
SDE		1 PT. AD. LEAD	SDFG	32 PT. LEAD	
SEF	DOUBLE SET (200 SERIES)		SCFG	ROW 1	
SFG			SDEFG		
SBD			SBEFG		
SBE	LENS T.1		SBCFG	LENS T.*10	
SBF	LENS T.2		SBCDG	LENS T.*12	PI-MAT 8
SBG	LENS T.4	PI-MAT 2	SBCDE	LENS T.*11	
SCE	ROW 6		SCEFG	ROW 8	
SCF	ROW 5		SCDFG	ROW 9	
SCG	ROW 3	PI-MAT 3	SCDEG	ROW 10	
SDF		2 PT. AD. LEAD	SCDEF	ROW 12	
SDG		PI-MAT 5	SBDFG		
SEG			SBDEG	LENS T.9	
SBCD	LENS T.11		SBDEF	LENS T.8	
SCDE	ROW 14		SBCEG	LENS T.*10	
SDEF		4 PT. AD. LEAD	SBCEF	LENS T.*10	
SEFG			SBCDF	LENS T.*11	
SBCE	LENS T.* 10		SCDEFG	ROW 16	
SBCF	LENS T.*10	KILL LINE	SBDEFG		
SBCG	LENS T.*10	PI-MAT 4	SBCEFG	LENS T.*10	
SBDE	LENS T.6		SBCDFG	LENS T.*12	
SBDF	LENS T.7		SBCDEG	LENS T.*12	
			SBCDEF	LENS T.*11	
			SBCDEFG	LENS T.*12	

Rev - Nov 20 67

560 – CODES

8×2 TAPE

PHOTON 560

FOR COMPUTER-GENERATED TAPE

NOTE: "Z" TO BE PART OF ANY 2 x 8 CODE

IBM CODE	ADD A for U.C	PHOTON CODE B	C	D	E	F	G	LOWER CASE	UPPER CASE	DISC SEQUENCE
				D				a	A	88
				D			G	b	B	73
		B			E			c	C	75
		B		D				d	D	79
		B						e	E	80
			C	D				f	F	82
			C			F		g	G	74
			C		E			h	H	78
					E			i	I	87
					E	F	G	j	J	67
		B	C		E			k	K	68
					E	F		l	L	81
						F	G	m	M	85
		B	C					n	N	84
						F		o	O	86
				D		F		p	P	77
		B		D	E			q	Q	66
							G	r	R	83
				D	E			s	S	76
			C					t	T	83
					E		G	u	U	70
			C				G	v	V	71
		B					G	w	W	70
		B	C	D				x	X	69
		B				F		y	Y	72
		B	C			F		z	Z	65

IBM CODE	ADD A FOR U.C.	PHOTON CODE B	C	D	E	F	G	LOWER CASE	UPPER CASE	DISC SEQUENCE
		B		D		F		COMMA	!	63
			C		E	F		½ DASH	DASH	62
				D		F	G	FRAC BAR	VERT BAR	51
		B				F	G	ZERO	)	52
		B			E	F		1	?	61
				D	E	F		2	HYPHEN	60
		B	C				G	3	DAGGER	59
			C	D			G	4	$	58
		B		D			G	5	%	57
			C		E		G	6	*	56
				D	E		G	7	&	55
		B			E		G	8	UNQUOTE	54
			C			F	G	9	(	53
		B		D	E	F		=	+	46
		B	C	D	E			ff	¢	49
			C	D	E	F		fl	ffi	48
				D	E	F	G	;	:	47
			C	D	E			fi	ffl	50
			C	D		F		Period	QUOTE	64

L.M. – HM. 12 68
NOV 20, 63